

IN THE CLAIMS:

1. (currently amended) A method for reconstructing an image of an object in a computed tomographic imaging system, said method comprising:

scanning an object using a computed tomographic (CT) imaging apparatus to acquire projections of the object;

determining, utilizing the projections, a set of thresholds utilizing said projections;

associating selected smoothing kernels with said-the thresholds;

utilizing-said, via the computed tomographic imaging system, the smoothing kernels and said-the projections to produce three-dimensional smoothed projections in accordance with said-the thresholds; and

filtering and backprojecting the three-dimensional smoothed projections to generate an image of the object in the computed tomographic imaging system.

2. (currently amended) A method in accordance with Claim 1 wherein said determining, utilizing the projections, a set of thresholds comprises determining a set of four thresholds comprising-including a high threshold, a medium threshold, a low threshold, and a very low threshold, and wherein a-one of the smoothing kernel-kernels is associated with each said threshold of the thresholds.

3. (currently amended) A method in accordance with Claim 2 wherein a one-to-one correspondence exists between said-the smoothing kernels and said-the thresholds.

4. (canceled)

5. (currently amended) A method in accordance with Claim 1 wherein said utilizing the smoothing kernels and said-the projections-to produce smoothed projections comprises utilizing a smoothing gain factor to modulate smoothing of said-the smoothed projections.

6. (currently amended) A method in accordance with Claim 5 wherein said-the smoothing gain factor is a function of said-the projections.

7.-14. (canceled)

15. (currently amended) A CT imaging apparatus comprising:

a detector;

a source configured to project a beam of x-rays toward said detector; and

a computer system operatively coupled to at least one of said detector and said source,
said computer system comprising:

a first module configured to scan an object to acquire projections of the object;

a second module configured to determine, utilizing the projections, a set of thresholds
utilizing said projections;

a third module configured to associate selected smoothing kernels with said—the
thresholds;

a fourth module configured to utilize said—the smoothing kernels and said—the
projections to produce three-dimensional smoothed projections in accordance with said—the
thresholds; and

a fifth module configured to filter and backproject the three-dimensional smoothed
projections to generate an image of the object.

16. (currently amended) An apparatus in accordance with Claim 15 wherein, to
determine a—the set of thresholds, said second module is configured to determine a set of four
thresholds comprising—including a high threshold, a medium threshold, a low threshold, and a
very low threshold[.,.] and to associate a—one of the smoothing kernelkernels with each said
threshold of the thresholds.

17. (currently amended) An apparatus in accordance with Claim 16 wherein said
the smoothing kernels and said—the thresholds exist in one-to-one correspondence.

18. (canceled)

19. (currently amended) An apparatus in accordance with Claim 15 wherein, to
utilize the smoothing kernels and said—the projections to produce the three-dimensional

smoothed projections, said fourth module is configured to utilize a smoothing gain factor to modulate smoothing of said-the smoothed projections.

20. (currently amended) An apparatus in accordance with Claim 19 wherein said-the smoothing gain factor is a function of said-the projections.

21.-28. (canceled)

29. (currently amended) A computer-readable-computer storage medium having comprising instructions thereon, said instructions configured to instruct a computer to:

determine, utilizing projections obtained by scanning an object, a set of thresholds utilizing projections obtained by scanning an object;

associate selected smoothing kernels with said-the thresholds;

utilize the smoothing kernels and said-the projections to produce three-dimensional smoothed projections in accordance with said-the thresholds; and

filter and backproject the three-dimensional smoothed projections to generate an image of the object.

30. (currently amended) A computer-readable-computer storage medium in accordance with Claim 29 wherein, to determine a-the set of thresholds, said computer-readable-medium is instructions are further configured to instruct the computer to determine a set of four thresholds comprising including a high threshold, a medium threshold, a low threshold, and a very low threshold[[,]] and to associate a-one of the smoothing kernel-kernels with each said threshold of the thresholds.

31. (currently amended) A computer-readable-computer storage medium in accordance with Claim 30 wherein said-the smoothing kernels and said-the thresholds exist in one-to-one correspondence.

32. (canceled)

33. (currently amended) A computer-readable-computer storage medium in accordance with Claim 29 wherein, to utilize the smoothing kernels and said-the projections to produce the three-dimensional smoothed projections, said machine-readable-medium is

instructions are further configured to instruct the computer to utilize a smoothing gain factor to modulate smoothing of said-the smoothed projections.

34. (currently amended) A computer-readable-computer storage medium in accordance with Claim 33 wherein said-the smoothing gain factor is a function of said-the projections.

35.-42. (canceled)